

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

| | | |
|---|---|---|
| Applicant's or agent's file reference DQIP-143-PCT | FOR FURTHER ACTION | see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below. |
| International application No. PCT/US03/29222 | International filing date (<i>day/month/year</i>) 15 September 2003 (15.09.2003) | (Earliest) Priority Date (<i>day/month/year</i>) 13 September 2002 (13.09.2002) |
| Applicant DRIL-QUIP, INC. | | |

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 3 sheets.



It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the Report

- a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.



the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

- b. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international search was carried out on the basis of the sequence listing:



contained in the international application in written form.



filed together with the international application in computer readable form.



furnished subsequently to this Authority in written form.



furnished subsequently to this Authority in computer readable form.



the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.



the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

2. ☐ **Certain claims were found unsearchable** (See Box I).

3. ☐ **Unity of invention is lacking** (See Box II).

4. With regard to the **title**,



the text is approved as submitted by the applicant.



the text has been established by this Authority to read as follows:

The title is too long. The new title is METHOD OF INSTALLING ADJUSTABLE FLANGE ON TUBE.

5. With regard to the **abstract**,



the text is approved as submitted by the applicant.



the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. The figure of the **drawings** to be published with the abstract is Figure No. 2



as suggested by the applicant.



because the applicant failed to suggest a figure.



because this figure better characterizes the invention.



None of the figures

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US03/29222

Box III TEXT OF THE ABSTRACT (Continuation of Item 5 of the first sheet)

The technical features mentioned in the abstract do not include a reference sign between parentheses (PCT Rule 8.1(d)).

NEW ABSTRACT

A method is disclosed of connecting first and second bodies (21, 23) in a mechanical assembly at a desired connection location (34). An elongate connection structure (40) is provided on the first body (21). The first body is installed, extending at least to the desired connection location (34). The first body is axially reduced, to terminate around the desired axial connection location. A second body (23) is connected relative to the desired connection location to the first body using the connection structure. Further subassemblies (32) may be installed, and electrically insulated from other parts of the mechanical assembly to protect against corrosion.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US03/29222

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : B21D 39/00; F16L 23/00; E21B 29/12

US CL : 29/456; 285/414; 166/341

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 29/456, 525.02, 525.11, 237; 285/414, 298, 390, 148.28; 166/341, 339

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
EAST BRS: flange, pipe, tube, adjustable

C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category * | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|------------|--|-----------------------|
| X | US 903,280 A (FARRELL) 10 November 1908 (10.11.1908). See Figures 1-5; page 1, lines 79-90; and page 2, lines 28-41. | 1, 2, 9, 11, 14 |
| --- | | ----- |
| Y | | 12, 13 |
| A | US 6,065,160 A (WINN) 23 May 2000 (23.05.2000). See the ABSTRACT and Figure 1A | 1-14 |
| A | US 857,134 A (WILCOX) 18 June 1907 (18.06.1907). See the flanged pipe connection in Figure 1, which is similar to the connection depicted by applicant in the figures. | 1-14 |
| A | US 2,454,356 A (THORNHILL) 23 November 1948 (23.11.1948). See Figure 3 | 1-14 |
| A | US 2,459,250 A (STILLWAGON) 18 January 1949 (18.01.1949). See Figure 1. | 1-14 |
| A | US 3,418,009 A (POLLIA) 24 December 1968 (24.12.1968). See Figure 1. | 1-14 |



Further documents are listed in the continuation of Box C.



See patent family annex.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T"

later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X"

document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y"

document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&"

document member of the same patent family

Date of the actual completion of the international search

16 February 2004 (16.02.2004)

Date of mailing of the international search report

29 MAR 2004

Name and mailing address of the ISA/US

Mail Stop PCT, Attn: ISA/US

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